

**MICHIGAN DEPARTMENT OF CIVIL SERVICE
JOB SPECIFICATION**

FORENSIC SCIENTIST

JOB DESCRIPTION

Employees in this job complete and oversee a variety of tests, analyses, identification, and classification of mechanical devices, chemical, biochemical, biological, and physical substances, materials, liquids, or other physical evidence for criminal, law enforcement, or investigative work in a State Police laboratory.

There are four classifications in this job.

Position Code Title – Forensic Scientist-E

Forensic Scientist 9

This is the entry level. As a trainee, the employee carries out a range of forensic scientist assignments while learning the methods of the work.

Forensic Scientist 10

This is the intermediate level. The employee carries out an expanding range of professional forensic scientist assignments in a developing capacity.

Forensic Scientist P11

This is the experienced level. The employee performs a full range of professional forensic scientist assignments in a full functioning capacity. Considerable independent judgment is required to carry out assignments that have significant impact on services or programs. Guidelines may be available, but require adaptation or interpretation to determine appropriate courses of action.

Position Code Title – Forensic Scientist-A

Forensic Scientist 12

This is the advanced level. The employee may function as a lead worker or senior worker. At this level, employees are responsible for overseeing the work assignments of other professionals or have regular assignments which have been recognized by Civil Service as having significantly greater complexity than those assigned at the experienced level in the series.

NOTE: Employees generally progress through this series to the experienced-level based on satisfactory performance and possession of the required experience.

JOB DUTIES

NOTE: The job duties listed are typical examples of the work performed by positions in this job classification. Not all duties assigned to every

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position are included, nor is it expected that all positions will be assigned every duty.

Searches for, collects, photographs, and preserves evidence.

Tests and analyzes a variety of samples, specimens, products or materials for chemical composition or presence of specific substances; follows standardized analytical procedures.

Employs analytical instrument techniques such as microscopy, spectroscopy, microphotography, spectrophotometry, infrared and ultra violet light, and gas chromatography to characterize materials and identify samples and specimens; develops new instrument methods.

Carries out qualitative and quantitative analyses.

Devises and adapts technical procedures and modifies equipment, as needed.

Keeps informed of new analytical or manufacturing methods.

Carries out examinations of portions of human tissues or body fluids for poisons, drugs and alcohol, antibody titers and infectious agents.

Tests for the presence and type of blood in stains or other specimens.

Analyzes specimens related to arson and hit-and-run accidents.

Participates in field investigations and makes on-the-scene examinations.

Reconstructs crime scene, preserving marks or impressions made by shoes, tires, or other objects by plaster moulage casts.

May examine and classify explosives, firearms, bullets, shells, and other weapons.

Determines photometric properties of reflective and light emitting devices.

Testifies in court as an expert witness on evidence or crime laboratory techniques.

Confers with experts in ballistics, fingerprinting, handwriting, documents, electronics, metallurgy, biochemistry, medicine, or others for reviewing evidence.

Performs routine maintenance on laboratory equipment, and inventories and orders required supplies.

Assists in the training of new laboratory personnel.

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Assists in the training of law enforcement personnel in areas related to Forensic Science.

Maintains records and prepares reports and correspondence related to the work.

May perform related essential functions appropriate to the class and other non-essential functions as required.

Additional Job Duties

Forensic Scientist 12 (Lead Worker)

Oversees the work of professional staff by making and reviewing work assignments, establishing priorities, coordinating activities, and resolving related work problems.

Forensic Scientist 12 (Senior Worker)

Performs on a regular basis professional historian assignments which are recognized by Civil Service as more complex than those assigned at the experienced grade level.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Some knowledge in the area listed is required at the entry level, developing knowledge is necessary at the intermediate level, considerable knowledge is required at the experienced level, and thorough knowledge is required at the advanced level.

Knowledge of the principles and practices of general, qualitative, quantitative, organic, physical and physiological chemistry.

Knowledge of the principles of biochemistry.

Knowledge of the principles of microbiology.

Knowledge of the fundamentals of physics and mathematics.

Knowledge of laboratory tests and control techniques.

Knowledge of statistical techniques used in the treatment of scientific data.

Knowledge of the fundamentals of analytical instrumentation.

Knowledge of departmental rules, regulations and policies related to the work.

Knowledge of the analysis of blood and other biologic products.

Knowledge of the physical, chemical and biological testing of materials.

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Knowledge of biochemical, chemical and physical laboratory tests used in crime detection.

Knowledge of appropriate health, safety and environmental regulations to provide for safe laboratory practices.

Knowledge of foods, feeds, fertilizers, economic poisons, and agricultural products.

Knowledge of the methods used in the production and testing of biologic products involving the application of biochemical, microbiological and immunological principles and practices.

Knowledge of photographic techniques and films.

Knowledge of techniques used in crime scene investigations.

Knowledge of computer application programs for laboratory activities and data.

Ability to plan and conduct research projects.

Ability to carry out laboratory procedures, tests and analyses required in the work and to interpret results obtained.

Ability to set up and carry out quality control programs for laboratory operations.

Ability to set up, use and maintain laboratory equipment.

Ability to prepare technical reports, records and papers related to the work.

Ability to provide effective courtroom testimony.

Ability to conduct methodological research from the assignment of a project through the various steps, including reporting of results.

Ability to maintain records and conduct correspondence related to the work.

Ability to communicate effectively with others.

Ability to maintain favorable public relations.

Additional Knowledge, Skills, And Abilities

Forensic Scientist 12 (Lead Worker)

Ability to organize and coordinate the work of others.

Ability to set priorities and assign work to other professionals.

Working Conditions

Typical assignments are carried out at a crime scene and in a laboratory environment with some exposure to noxious fumes and unpleasant noises.

Work involves some risk of sustaining illness and injury from the use of chemicals, high-pressure laboratory systems, biological materials and organisms, and high energy light sources and voltage.

Some jobs require an employee to work in a hostile environment.

Some jobs require an employee to work under extreme weather conditions and environmental conditions of work site.

Some jobs require an employee to be exposed to death, diseases, and illnesses.

Some jobs require an employee to be exposed to hazardous work environments.

Some jobs require an employee to work outdoors as well as in an office or a laboratory.

Some jobs require an employee to work where there is a significant chance of injury.

Some jobs require an employee to work in proximity to caustic chemicals in darkened and confined area.

Physical Requirements

Periods of prolonged standing are normal.

Education

Possession of a bachelor's degree in forensic science, chemistry, biochemistry, biology, microbiology, or a related pure or applied science.

Experience

Forensic Scientist 9

No specific amount or type is required.

Forensic Scientist 10

One year of professional experience as a forensic scientist working in a crime laboratory carrying out a variety of tests, analyses or production and research activities involving chemical, biochemical and biological samples, specimens and products equivalent in responsibility to a Forensic Scientist 9.

Forensic Scientist P11

Two years of professional experience as a forensic scientist working in a crime laboratory carrying out a variety of tests, analyses or production and research activities

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involving chemical, biochemical and biological samples, specimens and products equivalent to a forensic scientist in state service.

Forensic Scientist 12

One year of professional experience as a forensic scientist working in a crime laboratory carrying out a variety of tests, analyses or production and research activities involving chemical, biochemical and biological samples, specimens and products equivalent in responsibility to a Forensic Scientist P11.

Special Requirements, Licenses, and Certifications

None.

NOTE: Equivalent combinations of education and experience that provide the required knowledge, skills, and abilities will be evaluated on an individual basis.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

<u>Job Code</u>	<u>Job Code Description</u>
LABTRYSCI	Forensic Scientist

<u>Position Title</u>	<u>Position Code</u>	<u>Pay Schedule</u>
Forensic Scientist-E	FORNSCIE	H21-002
Forensic Scientist-A	FORNSCIA	H21-010

ECP Group Two
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EG/VLWT/SBK